

## REMARKS

Examiner, in the Official Action dated March 25, 2009 rejected the presented claims under 35 USC 102 (b) as being anticipated by Krowech et al and Woodings et al. Under Krowech, the Examiner stated that Krowech et al teaches a lance device (36) including a frame, guide, and pneumatic reciprocating drive means, in the embodiments of figures 2-4, for example, which can be operated in the manner recited in the instant claims, thereby showing all the aspects of claims 1-5. Regarding Woodings et al, the Examiner found that Woodings et al teaches a lance device (the drill shaft) including a frame, guide, and reciprocating pneumatic drive means, in the embodiments of figures 2 and 3, for example, which can be operated in the manner recited in the instant claims, thereby showing all aspects of the above claims since the drill meets the general description of a lance. Further, the Examiner noted that Applicant's arguments filed on 3/5/2009 were considered but not were unpersuasive. More specifically, the arguments that movement in a pulsating manner is not desired by either of the references cited are not persuasive. According to the Examiner; since the references can perform the function, and the actual use to which the references are intended to be put cannot be relied on to further distinguish the instant apparatus claims. The Examiner cited MPEP 2114. Further the Examiner found that the argument that movement in a pulsating manner is not possible with the references is not persuasive since the term lacks any periodicity. Pulsating movement can, therefore, be fairly met by any back and forth movement with any period, even as slow as one cycle per week, for example. Examiner went on to state that applicant's argument regarding the distance of the pulsating movement ( a series of

small steps) is also not persuasive at least because this limitation is not expressly present in the claims without a statement as to how small the steps would be.

In a telephonic interview with the Examiner on May 1, 2009 discussed the above issues with the Examiner as fairly documented in the Interview Summary provided by the Examiner dated May 5, 2009. As stated in that summary, a lack of periodicity in the claims or specification prompted the Examiner's use of the arguments rejecting the claims which are outlined above. Further, it was discussed that reciting structural differences from the references in any future claim amendments may avoid the application of MPEP 2114 in the rejection of the claims.

Applicant has, therefore, in light of the above arguments from the Examiner, amended the main claim to clearly cite structural differences with respect to the references. Both the references can be said to operate their respective devices with a pneumatic motor. Neither reference, however, uses a pneumatic valve timing circuit to actually operate the pneumatic motors cited in their disclosure. It is the use of this recited structural difference, namely, the pneumatic valve timing circuit, which allows for the rapid or pulsating movement in applicant's usage of his device. The pneumatic valve circuit allows rapid switching of pneumatic pressure to applicant's pneumatic motor resulting in the movement of the lance in what is termed "a pulsating manner". It is clear that this movement is characterized in a qualitative way lacking periodicity, but neither of the references shows a pneumatic valve timing circuit operating their pneumatic motors, nor would it be obvious, given their applications, to use such a pneumatic control means. A further major advantage to using a pneumatic timing circuit to operate applicant's pneumatic motor is that the pneumatic timing circuit is safer. Electrical signals which

may be generated during the use of electrically operated motors are absent in applicant's device. The chance of a such a signal or spark causing an explosion during the operation of applicant's lance is obviated. In Krowech, a system for automatically operating the soot blower is shown in Figure 3. Valves 88, 98, and 100 are coupled to and controlled by the timer circuit 90 (see col. 6, line 41 to col. 7, line 14). The details of the timer circuit are not disclosed. It is likely to be a conventional electrically operated circuit. In any case, no reference or teaching is made as to the use of pneumatic operated valves or pneumatic timing in the control of the soot blower. Further, Krowech, column 10, lines 18-40, and Figure 10 refers to a motor which can be operated pneumatically. No mention is made regarding the valves switching gas to the pneumatic cylinder 302 being pneumatically operated or that a pneumatic timing circuit is involved in the operation of the motor. As mentioned above, it cannot be said that from this disclosure coupled with the use of his apparatus that a pneumatically operated timing circuit would be an obvious option to operate the disclosed pneumatic motor of Krowech.

Regarding Woodings et al., in column 7, lines 15-19, a motor drive means 100 for axially advancing and retracting drive member 86 is discussed. Suitable linkages are provided such as a chain drive. Further, motor means 102 is attached for the purpose of rotating the drill shaft, and it is disclosed that this motor means 102 can be a pneumatic percussion drill. Other pneumatic or hydraulic motors could be used to advance the drill shaft (see col. 7, lines 29-40). Column 11, lines 25-28 also mentions the use of a combination rotary-percussion drill motor. Although the use of a pneumatic motor is disclosed, there is no mentioned made or suggestion to the use of pneumatically operated timing circuits to control these motors as these motors could be operated with

conventional electrical means.

Applicant submits that the claims as now amended contain a significant structural difference with respect to both of the cited references, a structural difference which is not obvious given the disclosure and the usage of the either Krowech et al. or Woodings et al. It is further submitted that this difference as recited in the amended main claim, makes the instant claims patentable with the respect to the cited references. Reconsideration of the rejections is requested and allowance of the claims as now amended is solicited.

A handwritten signature in black ink, appearing to read 'M. Zovko', is written over a horizontal line.

Mark Zovko

June 24, 2009

Reg. No. 27849

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for applicant